Grading the Group: QUANTA 2.0 and the Peer Review

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Abstract
Can students assess their peers on collaboration, a key practice in learning communities? The QUANTA program is a team-taught, two-semester coordinated studies program that is over 25 years old. The central governing ideas for the program are a belief in the social construction of knowledge, and recognition of the value of active, collaborative learning. Explicit instruction in and assessment of collaborative learning has always been part of the program. When new faculty took over QUANTA in its 24th year, they experimented with “The Peer Review,” a tool developed by Michaelsen, Knight and Fink (2004) in which students rate other members of their group but not themselves. They discovered that students could assess collaboration; ironically, as part of their collaborative work, students also found ways to subvert the tool and turn it to their own purpose.

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Grading the Group: QUANTA 2.0 and the Peer Review

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The QUANTA program at Daytona State College was developed in 1983 as a team-taught, coordinated studies model dedicated to integrating three disciplines while engaging students in active and collaborative learning. The two-semester, three-hours-a-day, three-days-a-week schedule allowed sufficient flexibility for the 72 students and 3 teachers to achieve these structural goals. Now in our 25th year, two of the original founders have retired, and we continue our learning community with some significant changes in our disciplines and in our assessment methods.

Practitioners of learning communities like ours tend to agree that group work—collaborative, active learning—is at the heart of the pedagogy we call the learning community method. While there are varied philosophical rationales behind the insistence on collaborative group work in the classroom, our central governing idea has always been a belief in the social construction of knowledge. This theory argues that a discourse like history or a concept like race is constructed by the consensus of a group of people, usually those in power. In the world of teaching, social constructivism posits that knowledge should not be equated with discrete bits of data to be memorized, but rather should be seen as a complex range of ideas to be negotiated and created through social interaction. In the classroom, that social interaction can occur in small groups of students negotiating the meaning of a poem, a concept, or an event.

Our students benefit from collaborative learning in various ways. They come to understand that learning is their responsibility, that there exists in these activities a kind of democracy not found in traditional
classrooms, and that working with other people is a complicated challenge. These benefits as well as the challenges extend beyond the classroom. Group work in a classroom setting creates community among the learners and, as a result, deep and lasting friendships are forged in groups where members wrestle with each other and with complex ideas. In addition, the hard-won skills of negotiation, patience, and leadership translate into the workplace after college where collaboration and teamwork are increasingly valued by employers.

Why then don’t all teachers, learning community based or not, employ collaborative learning methods if the benefits are so clear? One reason is that group work is notoriously hard to assess. At the beginning of the fall semester in QUANTA, when eager students just out of high school learn they will be assigned group projects and be graded on how well they perform and produce in groups, we hear the old refrain: “I hate groups because I always do all the work; everybody gets the same grade, and that’s not fair.” As faculty, we are sympathetic with the workhorse versus freeloader dilemma; we know from experience that it is very difficult to assess the performance of each member of the group, especially when much of the group’s preparation occurs outside the classroom.

Early on in QUANTA, we understood that students did not really know how to work in groups. If we were going to assess them, we first had to establish expectations and rubrics, and then train the students in this method of learning, allowing them to practice their collaborative skills in low-level group activities before moving on to more complex and challenging assignments. We devised several rather anecdotal assessment tools for group work that reflected this preparation. We had two assessment forms that students were required to turn in after completing a group presentation or project. One was designed to elicit descriptions of a student’s individual participation in the project, and one was designed to be completed by the whole group describing its successes and failures. In these assessment forms (see Appendix), we asked our students to use the language of group dynamics taught earlier in the semester to describe whether they were leaders, timekeepers, or taskmasters. We asked who did what. We asked them to describe any conflicts that occurred and how these were resolved. We asked what grade they thought they deserved and why. Despite the fact that there was nothing quantitative about this method, it worked surprisingly well for 23 years. Granted, the actual grading sessions were endlessly collaborative on the teachers’ end, forcing us to spend two hours or more calculating both a group grade and an individual grade for each project.
When the new QUANTA faculty took over in the 24th year, we searched for a new assessment tool that was more quantitative than the ones based on self-disclosure and found a model by Michaelsen, Knight, and Fink (2004) called "The Peer Review." As the name suggests, this tool asks students to rate other members of the group, but not themselves, using a number-based system. If there are six members in the group, each individual group member must rate the other five, assigning them an average of 50 points, 10 points each on average. Within the 50 points, they can assign their peers anywhere from a 0 for no participation to a 15 for the highest level of effort and productivity. The key to the success of this review is that each reviewer must assign a 9 or lower for one student and an 11 or higher for another. This rule should force the reviewers to critically evaluate the participation of each member, creating a bell curved grade spread in the end. In our version of the Michaelsen et al. scheme, this peer review counted as 50% of a student's final grade. The other half was based on the teachers' assessment of the presentation itself. Theoretically, this method would reward the workhorses and punish the freeloaders.

In our learning community, we had mixed success. The first time we used the peer review (always in tandem with the older, anecdotal tools), it worked well for both students and teachers. Students felt confident that within the confidentiality of the peer review they could be honest about productivity and effort. Almost immediately, we had no complaints or queries about the grading system. Likewise, the peer review allowed the teachers to quantitatively confirm our suspicions about a student who read haltingly from a prepared script on the day of the presentation. However, what ultimately happened to this assessment tool in QUANTA is clearly a testament to the paradoxical effects of community.

After repeated exposure to the assessment tool (something Michaelsen et al. does not advise), some groups chose collaboratively to break the rules of the peer review instrument; in our words, they organized The Deal. The Deal is this: instead of awarding a range of points from 9 to 11, they give each other the exact same points, or, if they are particularly clever, they make sure that each member receives a 9 and each member receives a 11, similarly nullifying the point spread and the efficacy of the review as a whole. We surmised that this curiously creative rebellion on the part of some of our students was caused by several factors, all paradoxically resulting from one of our core principles: community building. Multiple uses of this tool (based on multiple group activities) clearly led to a kind of familiarity, allowing more time to subvert it. In addition, high-functioning groups had fewer freeloaders, or none, and, over the course of the semester,
groups had developed a solidarity that resisted the secretive nature of this assessment tool, effectively bonding them against authority.

Our solution is to continue using this assessment method this year because we think it works by finally bringing quantitative data to the process of grading a group effort. When a group subverts the data, our short term fix is to fall back on the older narrative tools that we still use in conjunction with the peer review, affording us the same anecdotal window into the group process that we always had. Thankfully, not all groups master The Deal, nor feel cohesive enough to attempt it, but when they do we say to them, “you are giving us free rein to set your grade, based on the other tools and based on our assessment of your group’s presentation.” For next year and beyond, we have begun to look into other “deal proof” models that Michaelsen provides in his book and to use the tool more sparingly. In the end, however, we have to acknowledge the paradoxical nature of this development. The more we teach creative, collaborative, and critical thinking in QUANTA, the more we have to live with the consequences.

Reference

Appendix

Assessment Form

Peer Evaluation
Name ___________________________ Team # ______

Please assign scores that reflect how you really feel about the extent to which the other members of your team contributed to your learning and your team’s performance. This will be your only opportunity to reward the members of your team who worked hard on your behalf. (Note: If you give everyone pretty much the same score, you will be hurting those who did the most and helping those who did the least.)

Instructions: In the space below, please rate each of the other members of your team. Each member’s peer evaluation score will be the average of the points they receive from the other members of the team. To complete the evaluation, you should:
1) list the name of each member of your team in the alphabetical order of their last names,
2) assign an average of ten points to the other members of your team (for example, you should assign a total of 50 points in a six-member team, 60 points in a seven-member team, etc.), and
3) differentiate some in your ratings (for example, you must give at least one score of 11 or higher (maximum is 15) and one score of 9 or lower).

Preparation: Were they prepared when they came to class?
Contribution: Did they contribute productively to group discussion and work?
Respect for Others’ Ideas: Did they encourage others to contribute ideas?
Flexibility: Were they flexible when disagreements occurred?

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<th>Team Members: Scores</th>
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<td>1)</td>
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Additional Feedback: In the space below, please describe briefly your reasons for your highest and lowest ratings. These comments—but not information about who provided them—will be used to provide feedback to students who would like to receive it.

Reason(s) for your highest rating(s) (use back if necessary):  

Reason(s) for your lowest rating(s) (use back if necessary):

(Source: Adapted from Michaelsen, Knight, & Fink, 2004)